

ATRAZONOTUS, A NEW GENUS OF GONIANOTINI FROM  
NORTH AMERICA(HEMIPTERA: LYGAEIDAE)<sup>1</sup>JAMES A. SLATER<sup>2</sup>

and

PETER D. ASHLOCK<sup>3</sup>

In the present paper we review the status of the taxon first described as *Dorachosa* Distant, and discuss its relationship to the widespread black gonianotine lygaeid that has most frequently been listed in North American literature under the name *Aphanus umbrosus*.

Distant 1893 established the genus *Dorachosa* for *D. illuminatus* n. sp. and a variety *umbrosus* listed as "var. *umbrosus* (n. sp.<sup>2</sup>)." Typical *illuminatus* was described from Mexico ("Omitlteme in Guerrero 8,000 ft., H. H. Smith") and Guatemala Quiche Mts., 8,000 ft., Champion. Of this series the British Museum lacks the Mexican specimen but possesses three males labeled "Quiche Mts. 7,000-9,000 ft. Champion." The British Museum red "type" label is on a pin bearing two specimens on a single card. Of these we here select the left specimen as LECTOTYPE of *illuminatus*.

The type situation relative to "var. *umbrosus*" is more complex and very important to the nomenclature of the species occurring in the United States. The type series of *umbrosus* consists of eleven specimens as follows: 3 females, 1 male "Quiche Mts., 7,000-9,000 ft., Champion"; 1 female "V. de Chiriqui, 4,000-6,000 ft., Champion"; 1 female "Ostuncalco, 7,500, Champion"; 2 males, 2 females "Presidio, Mexico, Forrer"; 1 male "Boll, Texas, 1875, Distant Coll." Of the eleven specimens those from Quiche, V. de Chiriqui and Ostuncalco are certainly conspecific with *illuminatus* and differ only in possessing dark legs and antennae. The specimens from Boll, Texas, and Presidio, Mexico, however, represent an entirely different species, which has been called "*umbrosus*" in most subsequent North American literature.

Before attempting to advocate a solution to the problem raised by this type series, it appears desirable to review briefly the nomenclatorial and taxonomic history of the taxa involved. (A complete documentation will be found on pages 1418-1420 of the 1964 Slater Catalogue and will not be repeated here.)

*Dorachosa* Distant 1893 was found to be preoccupied and the taxon was renamed *Delochilocoris* by Bergroth 1893, at which time he also treated "*umbrosa*" as a distinct species, not a variety of *illuminatus*.

<sup>1</sup> This work was supported by a grant from the National Science Foundation.

<sup>2</sup> Department of Zoology and Entomology, University of Connecticut, Storrs, Conn.

<sup>3</sup> Bernice P. Bishop Museum, Honolulu, Hawaii.

Horvath 1908 synonymized *Delochilocoris* with *Aphanus* (of authors *nec* Laporte) and, except for misidentifications of *umbrosus* as the Palearctic *Microtoma carbonaria* (Rossi) and *M. atrata* (Goeze), the species was generally listed under *Aphanus umbrosus* until Ashlock 1960 correctly pointed out that *Delochilocoris* was not congeneric with *Aphanus* (nor *Rhyparochromus*: see Slater Catalogue for this confusing synonymy) and in fact represented a distinct genus in the rhyparochromine tribe Gonianotini.

The problem then is to determine the proper procedure to follow relative to "var. *umbrosus*," since the type series contains two distinct species. There are, of course, two alternatives. 1) Selecting a specimen from "Quiche" as lectotype of *umbrosus* would result in the placing of *umbrosus* in the synonymy of *illuminatus*, since the variety would have no geographic significance. The populations in the United States would be left without a name and would need description as a new species. 2) Selecting a specimen from Boll, Texas, or Presidio, Mexico, as lectotype of *umbrosus* would retain the specific name *umbrosus* for the North American taxon that has generally been so designated. The latter alternative seems to us patently the more desirable, and we hereby select the male specimen from Boll, Texas, as LECTOTYPE of *Dorachosa illuminatus* var. *umbrosus*.

Generic concepts in the Western Hemisphere gonianotines are complex and in need of careful analysis; *umbrosus*, however, appears to us to represent a distinct genus more closely related to *Malezonotus* than to *Delochilocoris*. Indeed, the relationship with some species of *Malezonotus* is very close, the aedeagus of *umbrosus* being almost identical with the condition found in *Malezonotus barberi* Ashlock and *Malezonotus obrieni* Ashlock. The aedeagus of *umbrosus* differs only in possessing a series of small spines on the dorsal lobes at the base of the vesica (fig. 4). The aedeagus of *Delochilocoris illuminatus* (Distant) possesses a much simpler vesica: the lateral lobes at the fold near the base are only two-parted and while the "bump-like" lobes are present dorsally on the base of the vesica, the two distally directed spine-bearing lobes are absent (fig. 3). The helicoid process has the usual two turns but the gonoporal process continues on for three and one-half turns instead of two as in *umbrosus*.

*Delochilocoris*, as indicated in the following key, can be readily recognized by the reticulate membrane and the formation of the spines on the fore femora (fig. 2). *Trapezonotus caliginosus* Distant 1882, by our concepts, belongs to *Delochilocoris*. Despite the obvious affinity to *Malezonotus*, *umbrosus* is easily differentiated by the strongly arcuate pronotum, surface texture, and such superficial criteria as completely black body and appendages. We feel that *umbrosus* merits generic status as described below.

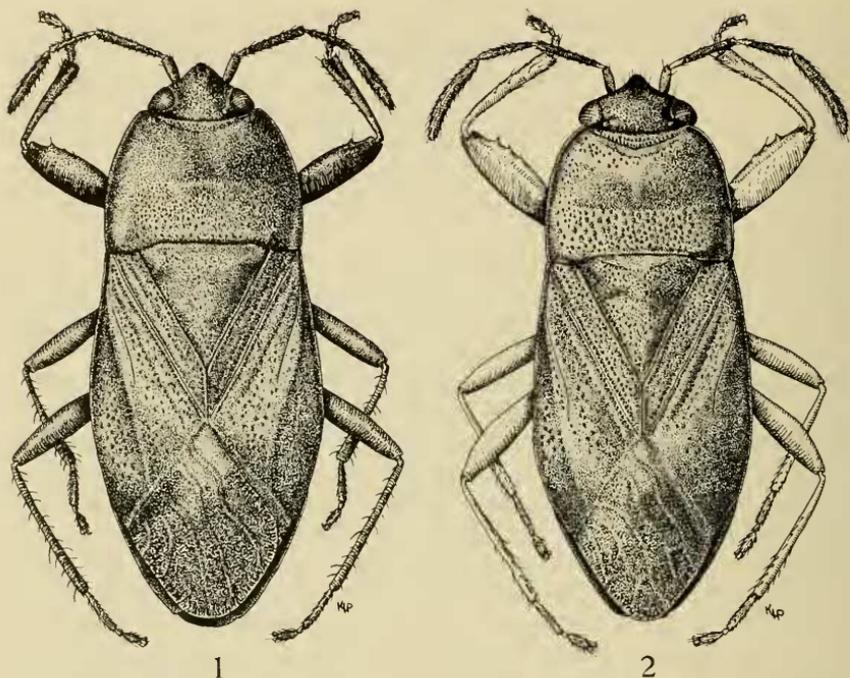


Fig. 1, *Atrazonotus umbrosus*, dorsal view; fig. 2, *Delochilocoris illuminatus*, dorsal view.

*Atrazonotus*, new genus

(Fig. 1)

Head wider than long, finely punctate or rugose, nearly glabrous except for several setae at apex of tylus. Pronotum much wider than long, indistinctly divided into two lobes, not constricted laterally, anterior lobe one half again length of posterior lobe at midline, anterior lobe obscurely punctate, posterior lobe with punctures smaller than those of hemelytra, lateral margin everywhere curved, nowhere straight or constricted, evenly expanded, not widened between lobes, impunctate, concolorous with disk, posterior margin evenly emarginate, not sinuately so. Scutellum about as long as broad, nearly flat, very lightly punctate. Hemelytra with lateral margins rather strongly curved, clavus with three straight rows of punctures plus additional confused punctures between inner two rows, corium with linear rows of punctures near clavus, becoming confused posteriorly, disk with scattered punctures, impunctate adjacent to costal margin. Membrane with veins unbranched and concolorous with dark disk. Metapleuron with shining area above dull evaporative area greater in height than height of eye viewed from side. Fore femur with a single row of spines

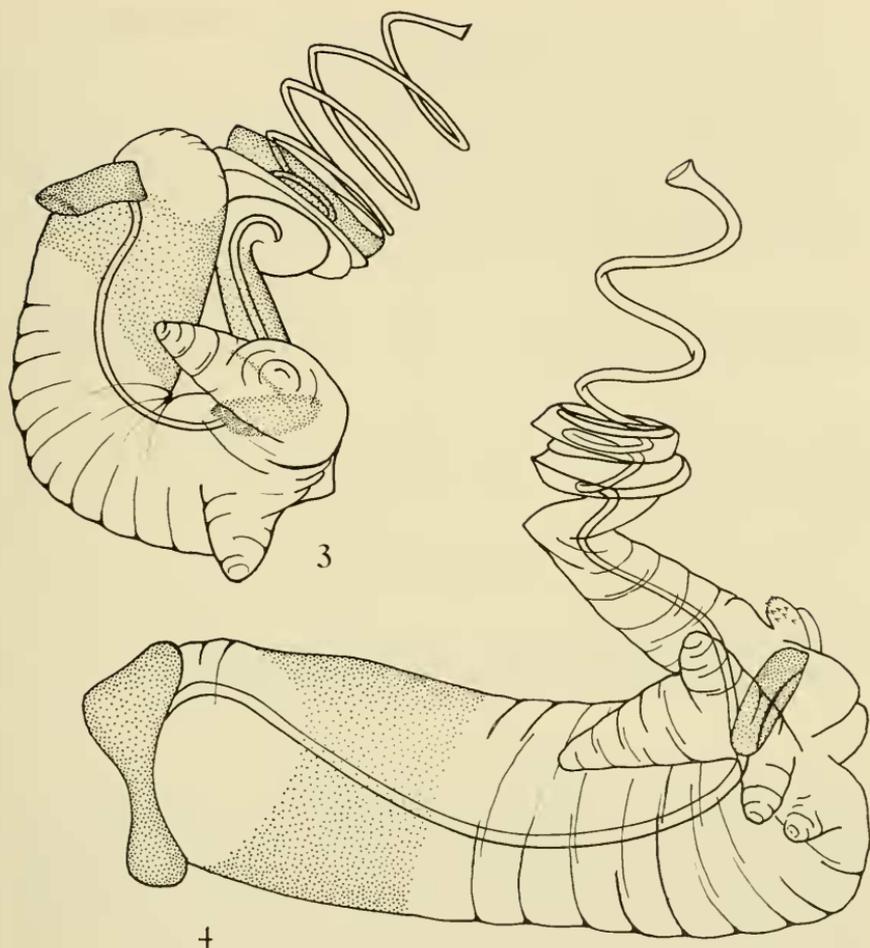


Fig. 3, *Delochilocoris illuminatus*, aedeagus; fig. 4, *Atrazonotus umbrosus*, aedeagus.

consisting of one major and several smaller setigerous spines, in all less than six, fore tibia not at all or but slightly curved. Aedeagus with simple phallosome and conjunctiva, but with a pair of small lateral lobes distally on conjunctiva; vesica with a pair of lateral three-part lobes basally at the conjunctival fold, dorsally with a pair of bump-like lobes followed by a pair of short, apically directed lobes that bear tiny spines, distad of ventral bend vesica continues as a short tapering tube, then bends dorsally at base of helicoid process, the latter with two complete turns, followed by two complete turns of gonoporal process (fig. 4).

Type-species: *Dorachosa illuminatus umbrosus* Distant 1893

## KEY TO THE GENERA OF GONIANOTINI OF AMERICA N. OF MEXICO

1. Expanded lateral margins of pronotum punctate dorsally ..... **Emblethis**  
Expanded lateral margins of pronotum impunctate ..... 2
2. Fore femur with spines in two ranks, more than ten spines present, major  
spines interspersed with minute spines ..... 3  
Fore femur with spines in a single rank, no more than six spines present,  
major spines not interspersed with minute spines ..... 4
3. Veins of membrane simple; species sometimes brachypterous .. **Trapezonotus**  
Veins of membrane reticulate (fig. 2); species never brachypterous .....  
..... **Delochilocoris**
4. Lateral margin of pronotum in part straight or constricted; appendages in  
part pale ..... **Malezonotus**  
Lateral margin of pronotum arcuate, never straight or constricted; append-  
ages entirely black (fig. 1) ..... **Atrazonotus**

We wish to extend our sincere appreciation to Dr. W. E. China for his kindness in allowing us to study material present in the British Museum (Natural History).

AUTHORSHIP OF THE ICHNEUMONID PARASITE  
"NEPIERA BENEVOLA VAR. FUSCIFEMORA"  
(HYMENOPTERA)

A. B. Gahan described the campoplegine species *Nepiera benevola* in 1914 (Proc. U.S. Natl. Mus. 48: 157) and *benevola* var. *fuscifemora* in 1917 (Proc. U.S. Natl. Mus. 53: 208). The description of *fuscifemora* was published nearly four months after U. S. D. A. Bulletin No. 427 (1917) by J. E. Graf entitled: The Potato Tuber Moth. Graf's reference (pp. 46-47) to "*Nepeira* (sic!) *benevola* var. *fusifemora* Cushman" in this bulletin has been considered as validating the name with Graf as the author (Townes, 1945, Mem. Amer. Ent. Soc. No. 2 (Pt.2):244, and Townes in Muesebeck, Krombein, and Townes, 1951, USDA Agr. Monogr. No. 2: 375).

I consider *Nepiera fuscifemora* to be a *nomen nudum* in Graf's paper and Gahan to be the author, for the following reasons: (1) The only "indication" in Graf's paper is the figure (fig. 44) which the legend states is *benevola*. (2) Gahan in his description of *fuscifemora* (footnote) refers to fig. 44 unequivocally stating that it is *benevola*, and he gives the complete bibliographic reference. (3) The figure shows the hind femora with the apices and bases dark. This is true of *benevola* but not of *fuscifemora*. The latter species has the outer side of the hind femur dark brown or blackish. There is no fuscous basal area on the inner side of the femur unless it extends nearly to the middle or more usually nearly to the apex.

It is my opinion that more specimens of these species may show the two to be conspecific. The slight structural and sculptural differences could be infraspecific. LUELLE M. WALKLEY, *Entomology Research Division, ARS, USDA, Washington, D. C.*